

16 hours, followed by a wash of 2XSSC/0.1% SDS at 42°C, then a wash of 0.5XSSC/0.1% SDS at 50°C, followed by a wash at 0.1XSSC/0.1% SDS at 65°C, and one at 0.1XSSC/0.1% SDS, at 68°C and determining said hybridization as a determination of expression of said gene.

40. The method of claim 39, wherein said nucleic acid molecule is labeled with  $^{32}\text{P}$ .
41. The method of claim 39, wherein said nucleic acid molecule is an antisense, RNA molecule.
42. The method of claim 39, wherein said nucleic acid molecule is a DNA molecule.
43. The method of claim 39, wherein said method comprises polymerase chain reaction.
44. The method of claim 39, wherein said nucleic acid molecule comprises a nucleotide sequence set forth in SEQ ID NO: 12, 14, 15, 16, 17, 18, 21, 22, 24, 25, 27 or 29.
45. The method of claim 43, comprising contacting said sample with a pair of oligonucleotide primers, said pair selected from the group consisting of (i) SEQ ID NOS: 12 and 14, (ii) SEQ ID NOS: 15 and 16, (iii) SEQ ID NOS: 17 and 18, (iv) SEQ ID NOS: 21 and 22, (v) SEQ ID NOS: 24 and 25, and (vi) SEQ ID NOS: 27 and 29.
46. The method of claim 39, wherein said sample is RNA isolated from a cell sample.
47. A method for determining if a cell contains a gene which encodes a human polypeptide which has PI3 kinase activity and a molecular weight of about 110 kilodaltons as determined by SDS-PAGE, comprising isolating DNA from said cell and contacting isolated DNA with a labeled nucleic acid molecule which hybridizes specifically to said gene at 1m NaCl / 10x Denhardt's solution / 50mM Tris-HCL (pH 7.4) / 10mMEDTA / 0.1% SDS / 100µg/ml denatured herring sperm DNA at 65°C for 16 hours,

followed by a wash of 2XSSC/0.1% SDS at 42°C, then a wash of 0.5XSSC/0.1% SDS at 50°C, followed by a wash at 0.1XSSC/0.1% SDS at 65°C, and one at 0.1XSSC/0.1% SDS, at 68°C and determining hybridization as a determination of presence of said gene.

48. A method for determining if a substance is an agonist or antagonist of expression of a gene which encodes a human polypeptide which has PI3 kinase activity and a molecular weight of about 110 kilodaltons as determined by SDS-PAGE, comprising contacting a sample which is known to contain said gene with said substance followed by contacting said sample with a nucleic acid molecule which hybridizes specifically to a transcript of said gene, at 1m NaCL/10x Denhardt's solution/50mM Tris-HCL (pH 7.4)/10mMEDTA/0.1%SDS/100µg/ml denatured herring sperm DNA at 65°C for 16 hours, followed by a wash of 2XSSC/0.1% SDS at 42°C, then a wash of 0.5XSSC/0.1% SDS at 50°C, followed by a wash at 0.1XSSC/0.1% SDS at 65°C, and one at 0.1XSSC/0.1% SDS, at 68°C and determining hybridization to said transcript, and comparing hybridization to said transcript to hybridization of said nucleic acid molecule to said transcript prior to contact with said substance, wherein an increase in hybridization after contact with said substance as compared to hybridization prior to contact with said substance indicates that said substance is an agonist of expression of said gene, and a decrease in hybridization after contact with said substance as compared to hybridization prior to contact with said substance indicates that said substance is an antagonist of said gene.
49. The method of claim 39, wherein said gene encodes a human polypeptide, the amino acid sequence of which is encoded by the nucleotide sequence set forth in SEQ ID NO: 32.
50. The method of claim 39, wherein said gene encodes a human polypeptide, the amino acid sequence of which is set forth in SEQ ID NO: 37.